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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,174	03/15/2005	Henryk Struszczyk	7007USO1	6038

57360 7590 08/24/2007  
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EXAMINER
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WHITE, EVERETT NMN

ART UNIT	PAPER NUMBER
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1623

MAIL DATE	DELIVERY MODE
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08/24/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/501,174

Applicant(s)

STRUSZCZYK ET AL.

Examiner

Everett White

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 14, 2007 has been entered.

2. The amendment filed June 14, 2007 has been received, entered and carefully considered. The amendment affects the instant application accordingly:

- (A) Claims 1-7 have been canceled or previously canceled;
- (B) Claims 8-11 have been added;
- (C) Comments regarding Office Action have been provided drawn to:
  - (I) 103(a) rejections, which has been maintained for the reasons of record;

3. Claims 8-11 are pending in the case.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 8-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Struszczyk et al (WO 01/87988) for the reasons disclosed on pages 3 and 4 of the Office Action mailed March 23, 2007.
6. Applicant's arguments filed June 14, 2007 have been fully considered but they are not persuasive. Applicants argue against the rejection on the ground that the Struszczyk et al WO publication is devoid of teaching or suggesting that any of the chitosan compositions disclosed therein contain any protein, or any desirability or benefit for having protein removed from a chitosan composition. This argument is not persuasive since the 2<sup>nd</sup> paragraph on page 4 of the Struszczyk et al publication disclose that "any convention source of chitosan may be utilized to form the chitosan solution, which include chitosan sources derived from shellfish or fungally derived," which obviously would contain protein particles. Applicants' attention is directed to the Bomstein patent (US Pat. No. 3,833,744), which discloses the well known process for obtaining chitosan, which involve deacetylation with sodium hydroxide of chitin or the chitin source materials, especially crustacean shells and fungal mycelium, wherein Example 1 of the Bomstein patent discloses that the final product may comprises a nitrogen content of about 6.4%, which suggests the present of proteins. It is also noted that the instant specification recites that the instantly claimed method "destroys the stable complex connections of proteins with initial chitosan by its dissolution", which suggests that the proteins present in the chitosan solution of the instant claims are proteins derived from original sources, which is embraced by the Bomstein patent.

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The Struszczyk et al publication clearly establishes a process of treating a chitosan solution with aqueous basic solutions as instantly claimed. The fact that a claimed method or composition is more effective than anticipated is not persuasive of unobviousness where what is claimed would flow naturally from the teachings of the prior art. *In re Adams et al.* (CCPA 1960) 284 F2d 525, 128 USPQ 116; *In re Libby* (CCPA 1958) 255 F2d 412, 118 USPQ 94; *In re Crockett et al.* (CCPA 1960) 279 Fed 274, 126 USPQ 186; *In re Lieser* (CCPA 1947) 162 Fed 224, 74 USPQ 104; *In re Olsen* (CCPA 1944) 146 F2d 501, 64 USPQ 180. The instantly claimed method only shows that the method already used by the Struszcayk et al publication is also effective in removing proteins from chitosan or is more effective than anticipated, which is an insufficient reason for indicating patentable subject matter.

In view of the similarities of the process steps disclosed in the Struszczyk et al publication to the process steps disclosed in the instantly claimed method, the preparation in the Struszczyk et al publication of closely similar microcrystalline chitosan products, and the lack of specific teachings in the Struszcak et al patent that requires the removal of proteins before the neutralization procedure to produce the microcrystalline chitosan in the Struszczyk et al publication, the rejection of Claims 8-11 under 35 U.S.C. 103(a) as being unpatentable over the Struszczyk et al publication is maintained for the reason of record.

### **Summary**

7. All the pending claims are rejected.

### **Examiner's Telephone Number, Fax Number, and Other Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-066127. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



E. White



Shaojia A. Jiang  
Supervisory Primary Examiner  
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